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Helicopter Transport Plan Rev 2

Project: WO-LT-0093 – Kajaki CMS	Date: August 09, 2016
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PRESENTED TO

United States Agency for International
Development (USAID)
Office of Economic Growth and
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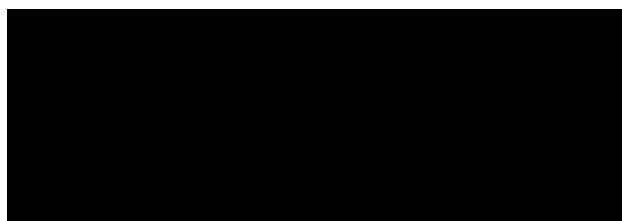
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Kabul, Afghanistan

PRESENTED BY

Tetra Tech, Inc.
Afghanistan Engineering Support Program
Contract No. EDH-I-00-08-00027-00
Task Order No. 1

Shash Darak
Kabul, Afghanistan

Tetra Tech, Inc.



Title: **AESP Acting Chief Of Party** **08/09/2016**

EXECUTIVE SUMMARY

This helicopter transport plan is submitted to USAID pursuant to Tt AESP Work Order WO-LT-0093 Kajaki Construction Management Services (CMS), specifically Task 2c Helicopter Transport Services. This plan was updated based on the change in helicopter transport services provider from Skylink to Megaviation.

This plan provides basic helicopter transport for Kajaki base life support resupply, shift rotation of assigned personnel, and movement of materials. The plan also provides for coordinated emergency evacuation with the RMC security plan.

This helicopter transport plan provides for one MI8-MTV helicopter on an exclusive use basis. This plan also provides for one standby MI 8-MTV helicopter, which will support a more rapid emergency evacuation. This plan has also been updated to now include one MI-8T helicopter as backup, if either the primary or standby MI-8MTV is grounded. This plan allows the subcontractor to slightly modify this arrangement should they be required to fly dual ship missions with a primary MI-8MTV and a MI-8T, or with two MI8-MTVs, at no extra cost to the government.

Planning is a continuous and evolutionary process. This plan will be updated from time to time and whenever necessary.

DISCLAIMER

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

FIRM INFORMATION

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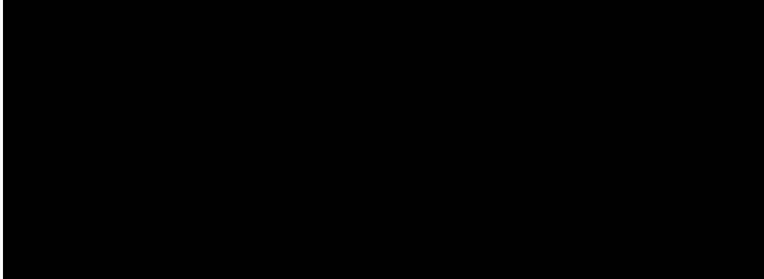


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1.0 HELICOPTER SUPPORT CONCEPT OF OPERATIONS

1.1 INTRODUCTION

Megaviation will provide mission critical transportation services to Tetra Tech involving a rotary-wing aircraft with qualified and certified aircrews, maintenance and support personnel to conduct airlift operation to include scheduled charters, on demand service and emergency evacuation. All operations will be conducted in accordance with international aviation standards and directives, the host nation's rules and regulations and Megaviation and Tetra Tech's standard operating procedures.

1.2 OPERATIONAL SCOPE

1.2.1 Base Life Support – MI-8MTV

Tetra Tech is contracted with the U.S. Agency for International Development (USAID) in support of their efforts on the Helmand Power Project. Tetra Tech has a requirement for airlift to move its employees and equipment to various areas within Afghanistan in support of this project. Megaviation will furnish the following resources in order to support Tetra Tech's efforts:

1. Contracted rotary wing aircraft – MI-8MTV (backup MI-8MTV if required)
2. Management
3. Air crews
4. Ground crews
5. Life Support
6. Infrastructure for operations, offices, storage, life support and administration
7. Equipment and materials to support operations and administration.

All tasks will be flown routinely in daylight to all locations assessed as Low or Medium Threat. Megaviation will work closely with Tetra Tech and the Risk Management Consultant team to determine threat and service needs with the lowest possible risk exposure to Tetra Tech and Megaviation persons and assets. Real-time communications between these three elements will be crucial to successful risk mitigation.

1.2.2 Backup Helicopter – Evacuation Support

Megaviation will furnish the following resources to provide a rotary wing aircraft for provision of air transportation to the use of Tetra Tech. This aircraft will be used should the primary helicopter fail, or should an emergency evacuation be required. The aircraft base of operation upon activation will be in Kandahar:

1. Contracted rotary wing aircraft to perform emergency evacuations – MI-8MTV (backup MI-8T if required)
2. Program Management
3. Air crews to operate both rotary and fixed wing aircraft
4. Ground crews
5. Life Support
6. Infrastructure for operations, offices, storage, life support and administration
7. Equipment and materials to support operations and administration.

1.2.3 Backup Helicopter – MI-8MTV

The backup aircraft to transport Tetra Tech's passengers and equipment is the MI-8T helicopter should be the primary or backup MI-8MTV helicopters fail.

Characteristics:

Crew:	3 flight crew members
Maximum Seating:	14 passengers
Maximum Cargo Load:	1,000 kg
Max Cruise Speed:	170 km/hr
Range with Maximum Fuel:	670 km

1.2.4 Standby Helicopter – As needed

Megaviation will furnish the following resources to provide a rotary wing aircraft for provision of air transportation for the use of Tetra Tech. This aircraft will be used as replacement of grounded primary air assets. It will be ready for positioning from Kabul to Kandahar within 24 hours from the moment unreparable malfunction occurs on the primary or standby asset.

1.3 AIRCRAFT SPECIFICATIONS

1.3.1 Primary and Standby Helicopters – MI-8MTV

The preferred aircraft to transport Tetra Tech's passengers and equipment to all locations and in all conditions of mountains and weather is the MI8-MTV helicopter:

Characteristics:

Crew:	3 flight crewmembers
Maximum Seating:	24 Passengers
Maximum Cargo Load:	up to 4 Tons internal, 3 tons external
Max Cruise Speed:	170 km/hour
Range with Maximum Fuel:	600 km

1.3.2 Dual-ship missions

Megaviation will slightly modify the above-described arrangement should they be required to fly dual-ship missions, in which case, they will pursue the following two options in the order listed:

- 1) Megaviation will fly a dual-ship configuration with the primary MI-8MTV and a MI-8T. Only the MI-8MTV block hours will be charged to meet the 60 contractual minimum hours. In the event that Tt elects to mover passengers or cargo on the Mi8-T, the hours will be built at the MI-8T rate.
- 2) Megaviation will fly a dual-ship configuration with two MI-8MTVs, each helicopter flying a minimum of 30 hours per month.

1.4 ENVIRONMENT

Kandahar and its surrounding areas constitute a harsh operating environment. Megaviation will pay close attention to the changing surface-to-air threat, and current threat assessments. In order to standardize operations Megaviation has developed a General Operations Manual and Helicopter Landing Zone (HLZ) cards for all known landing sites. In addition, Megaviation has a proven Standard Operating Procedures (SOP) to develop new HLZs quickly when a new site is opened.

1.5 KEY PERSONNEL

Megaviation will provide a Project/Operations Manager to act as a liaison with Tetra Tech and coordinate all activities on the ground. The project/Operations Manager for this program is Mr. Vakhtang Kukava, Country Manager. He is currently deployed in Kabul. He will be supported by his operations staff, as well as Megaviation's General Manager, Mr. Oleg Borysov.

In addition, Megaviation will provide pilots, ground, operations, fuel, engineering and rear compartment personnel who are trained to conduct their specific tasks. Capabilities also include ground handling Service with qualified personnel to marshal to International Civil Aviation Organization (ICAO) standards.

1.6 OPERATIONS MANAGEMENT

Megaviation currently has sufficient deployed operations personnel and infrastructure to plan and execute Tetra Tech's mission, monitor intelligence updates, produce daily flying programs. All operations personnel are fluent in English.

1.7 MEGAVIATION PERSONNEL & CREW

Megaviation will provide Civil Aviation Authority (CAA) certified and qualified aircrews, ground crews, and support personnel. Megaviation's pilots employed in this contract possess the necessary commercial licenses and hold the correct ICAO or JAA type ratings. They are fluent in English to ICAO Level 4. Megaviation will also provide qualified engineering, aircraft handling and cargo handling personnel and equipment to load and unload all cargo to or from the aircraft. Ground staff can communicate in English as their second language. In performing these duties, Megaviation will ensure that all Airfield Operating Authority (AOA) standard operating procedures (SOPs) are followed.

1.8 PLANNING FACTORS & MISSION OPERATIONS

Megaviation understands that Tetra Tech's requirements will be as follows:

1. Air lift for scheduled missions
2. Ad-hoc/on-demand short notice support
3. Emergency/Medical Evacuation
4. Evacuation of Tetra Tech field sites to include the Kajaki facility

Megaviation's primary helicopter will be based at Kandahar Airfield and operating mission to various locations, as requested by Tetra Tech. Operations will be limited to within the borders of Afghanistan.

1.8.1 Operations

Megaviation will execute flight operations in accordance with Afghan AIP edition 74 and the Civil Aviation Authority of the aircraft country of registration, Megaviation standard operating procedures (SOPs) as well as the contract agreement between Tetra Tech and Megaviation.

1.8.2 Daily Flight Operations

Megaviation will be prepared to conduct flight operations 6 days in any 7-day period where conditions allow, based on assessment of the weather and security. Single crews are limited to six consecutive duty days. Any delays imposed by weather or security will be executed as soon as the conditions allow. The flight operations program has been developed in response to requirements of Tetra Tech. Megaviation is capable of delivering multiple sorties daily from within established contract resources.

1.8.3 Night Operations

Primarily, operations will be performed in daylight hours. Megaviation is capable of and will operate at night in exceptional circumstances under special VFR conditions and rules.

1.9 MEGAVIATION RESPONSE CAPABILITIES

Scheduled Tasks: Megaviation will fly tasks as per Tetra Tech approved schedule.

Emergency Evacuation: Megaviation's MI-8MTV helicopter, in conjunction with the primary MI-8MTV helicopter must be able to evacuate up to 200 personnel from the Kajaki site within 24 hours or less of the evacuation order.

Emergency Evacuation: Noncombatant Evacuation Operations (NEO) require detailed preplanning, close coordination between the air / ground teams and a high degree of operational flexibility. Megaviation's concept of operation for an emergency evacuation of the Kajaki Dam Site includes:

1. Kandahar based rotor wing support capability
2. Identification and utilization of alternate helicopter landing zones (HLZ)
3. Identification and utilization of fixed wing landing runways
4. Establishment of an air / ground communications network
5. Closely coordinated air / ground planning and information sharing
6. Delivery of second aircraft short notice evacuation capability

Megaviation planning and execution will be conducted in conjunction with Garda World (Tetra Tech's proposed security provider) to assure seamless coordination and execution of a fully integrated air / ground team should the need for an emergency evacuation arise. Planning is continuous and Megaviation's operational plan will be evolutionary throughout the life of the contract.

NEO planning assumes a permissive environment. The capabilities, concepts of employment and cycle times listed below are predicated on that environment.

1.10 CONCEPT OF OPERATIONS

Upon notification, Megaviation will be capable of launching the primary MI-8MTV from Kandahar within one hour. The Megaviation Operations Center will establish and maintain close coordination and communications with the security provider's Operations Center and the Kajaki Dam RMC security element. The evacuation HLZ/s (pick up and drop off) will be identified and agreed upon after conducting a "real time" HLZ risk based analysis.

Megaviation will move to the designated extraction zone and begin recovery operations. Passenger manifests and personnel evacuation priorities will be closely coordinated with ground based security elements. Recovery operations will continue until all personnel have been safely evacuated to the predesignated holding point or until such time safety of flight conditions deteriorate suspending flight operations. Should flight operations need to be suspended, Megaviation will resume evacuation operations as soon as conditions improve to a level commensurate with safe flight.

1.10.1 Evacuation Support

In the event of an evacuation from a client's site, Megaviation will provide the airlift support to safely relocate Tetra Tech's staff to a location out of harm's way. The site for receiving evacuated personnel is Kandahar, where Amtex has the ability to accommodate up to 50 individuals at the existing camp and provide any coordinate medical support, if needed.

1.10.2 Threat Assessment

Helicopter operations are generally governed by threat assessments. All aviation sorties are restricted dependent upon the classification placed upon the landing zone (LZ). Megaviation will coordinate with Tetra

Tech in the assessment of threat and scheduling process for the movement of its assets. The below system will be used when evaluating and planning missions:

1. Low Threat (Green LZ) Operations

Megaviation will operate into any LZ categorized as GREEN. Megaviation will conduct a threat assessment of the LZ, through liaison with the local authorities to formulate the assessment.

2. Medium Threat (Yellow LZ) Operations

Megaviation will operate into a Medium threat HLZ once a determination has been made the risk has been mitigated to acceptable levels. Direction of approach, altitude, terrain, threat and weather will all need to be assessed regularly for these sites.

3. High Threat (Red LZ) Operations

Megaviation will not operate into a LZ which has been determined by Tetra Tech, Tetra Tech's RMC or Megaviation as beyond the risk threshold.

1.10.3 Route Selection

Megaviation will be solely responsible for choosing ingress and egress routes to LZs, in compliance with airspace control directives issued by the military and civil authorities within Afghanistan. Megaviation will follow direction from the LZ's Controller.

1.10.4 Daily Operations Routine

Megaviation's maintenance teams will conduct aircraft maintenance operations during predesignated periods between missions. Aircraft will be preloaded for the following day's mission. The goal is to have all aircraft operationally ready as quickly as possible after each mission is completed. This approach ensures that Megaviation can optimize flight timing and maximize cargo carrying (lift) capacity.

Missions will be planned and flown in compliance with Tetra Tech's requirements. Afghanistan is a combat zone. Unexpected events will occur, the key to success in this response is the preparation, anticipation, and rapid passage of information between Megaviation and Tetra Tech.

1.10.5 Flight Following

All Megaviation aircraft are equipped with a real-time position tracking system based on the "Terrastar System". This satellite flight tracking system will enable the Hub Managers and Operations Centre to track the location of each aircraft, and provide two-way messaging through satellite communications.

2.0 MAINTENANCE

2.1 AIRCRAFT MAINTENANCE

Megaviation will perform scheduled and unscheduled maintenance using qualified aircraft maintenance technicians. Megaviation will also conform to the aircraft original equipment manufacturer (OEM) proscribed maintenance schedule and practices.

3.0 SAFETY

3.1 INDUSTRIAL SAFETY

Megaviation has a dedicated Flight and General Safety Officer who is responsible to conduct training and safety inspections to ensure that all industrial and flight safety policies and regulations are followed by all personnel.

3.2 FLIGHT SAFETY

Megaviation's Flight Safety Program is conducted in compliance with the certification requirements of the Civil Aviation Authority of the CIS country from which Megaviation's aircraft are sourced.

4.0 QUALITY

Megaviation will provide a Quality Management System that assures to Tetra Tech consistent quality, security, availability, dependability and timeliness of performance. Megaviation will support the execution of airlift logistics operations across the Area of Operations (AOO) in Afghanistan (AFG). Megaviation has developed a Quality Assurance Plan to deliver effective quality assurance in this contract.

5.0 MOBILIZATION

As an existing operator in Afghanistan, Megaviation has mobilized to perform the services required for the Tetra Tech contract. Additional aircraft may have to be positioned into Kandahar. However, all the required support is in place.

ANNEX A – PRICING SHEET – PRIMARY HELICOPTER

EXHIBIT B1

Pricing – Primary MI-8MTV

Ref. No:
MEGA/TETRAT/310316-003



MEGAVIATION

**Terms and Conditions for MI-8-type Helicopter Contracted Charter Services for
Kajaki:**

PRIMARY AIRCRAFT:



Aircraft Type:	MI-8MTV Reg. No. ER-MYA (or substitute of the same type) Fuel consumption: 750 liters/hour Crew: 5
Operating Base:	Kandahar, Afghanistan
Capability:	up to 3,500 kg / 24 PAX
Availability:	start of operations ex-Kandahar within 3-5 days from the date Contract is signed and Prepayment done;

Guaranteed Hours: **60 Block Hours per month**

Hour Rate, all-inclusive:



Positioning Fee: not applicable**

De-positioning Fee: not applicable**

*** - Client will be charged the Hour Rate against the 60 Block Hour Guaranteed Hours when the helicopter flies out from Kabul to Kandahar with Client's payload onboard.*

Hour Rate, all-inclusive includes but is not limited to the following: Cargo/PAX handling at Kandahar, Aircraft Fuel, Crew and Ground Personnel Visa support, Crew and Ground Personnel Accommodation, Crew and Ground Personnel Daily Allowances, Crew and Ground Personnel Meals, Crew and Ground Personnel Medical Support, Crew and Ground Personnel Travel Support, Aircraft Operation Permits, Aircraft Route Navigation Fees, Aircraft Landing/Take-off Fees, Aircraft Parking Fees, Aircraft Cleaning Service, Aircraft Water Service, Aircraft Security Storage Area, Aircraft Insurance, Ground Support equipment (crane, GPU, ladders, etc.), Crew Insurance, Cargo/PAX Insurance, DBA Insurance, and Business related Taxes, Duties, Fees, etc.

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ANNEX B – PRICING SHEET – STANDBY HELICOPTER

EXHIBIT B2
Pricing - Standby MI-8MTV

Ref. No:
MEGA/TETRAT/310316-003



MEGAVIATION

**Terms and Conditions for MI-8-type Helicopter Contracted Charter Services for
Kajaki:**

STAND-BY AIRCRAFT:



Aircraft Type:	MI-8MTV Reg. No. ER-MYB (or substitute of the same capacity) Fuel consumption: 750 liters/hour Crew: 5
Operating Base:	Kabul and Kandahar, Afghanistan
Capability:	up to 3,500 kg / 24 PAX
Guaranteed Hours:	<u>not applicable</u>

Hour Rate, all-inclusive: _____ per Block Hour for use as evacuation aircraft. When Stand-by helicopter is used as a replacement for the Primary Helicopter, the Hour Rate and availability will be as described in Exhibit B1.

Positioning / De-positioning Fees: not applicable**

AVAILABILITY:

- Stand-by asset will be available within **5 days** from the date Contract is signed and Prepayment for primary aircraft done;
- No later than 5 days from the date the Contract is signed and prepayment for primary aircraft is done, the stand-by asset will be ready for positioning from Kabul to Kandahar for **emergency evacuation to be completed within 24 hours notice**;
- If stand-by asset is to be used for replacement of **grounded primary asset** it will be ready for positioning from Kabul to Kandahar within **24 hours** from the moment unrepairable malfunction on primary asset occurred.

** - applicable for emergency evacuation flight only;*

*** - to be calculated as per actual Block Hours flown from Kabul to Kandahar at Hour Rate of **USD 5,700.00**. There are no charges for the depositioning flight from Kandahar to Kabul. There shall be no charge for Block Hours flown from Kabul to Kandahar and back if the stand-by asset is used for replacement of the **grounded primary asset**.*

Hour Rate, All-Inclusive includes but is not limited to the following: Cargo/PAX handling at Kandahar, Aircraft Fuel, Crew and Ground Personnel Visa support, Crew and Ground Personnel Accommodation, Crew and Ground Personnel Daily Allowances, Crew and Ground Personnel Meals, Crew and Ground Personnel Medical Support, Crew and Ground Personnel Travel Support, Aircraft Operation Permits, Aircraft Route Navigation Fees, Aircraft Landing/Take-off Fees, Aircraft Parking Fees, Aircraft Cleaning Service, Aircraft Water Service, Aircraft Security Storage Area, Aircraft Insurance, Ground Support equipment (crane, GPU, ladders, etc.), Crew Insurance, Cargo/PAX Insurance, DBA insurance, and Business related Taxes, Duties, Fees, etc.